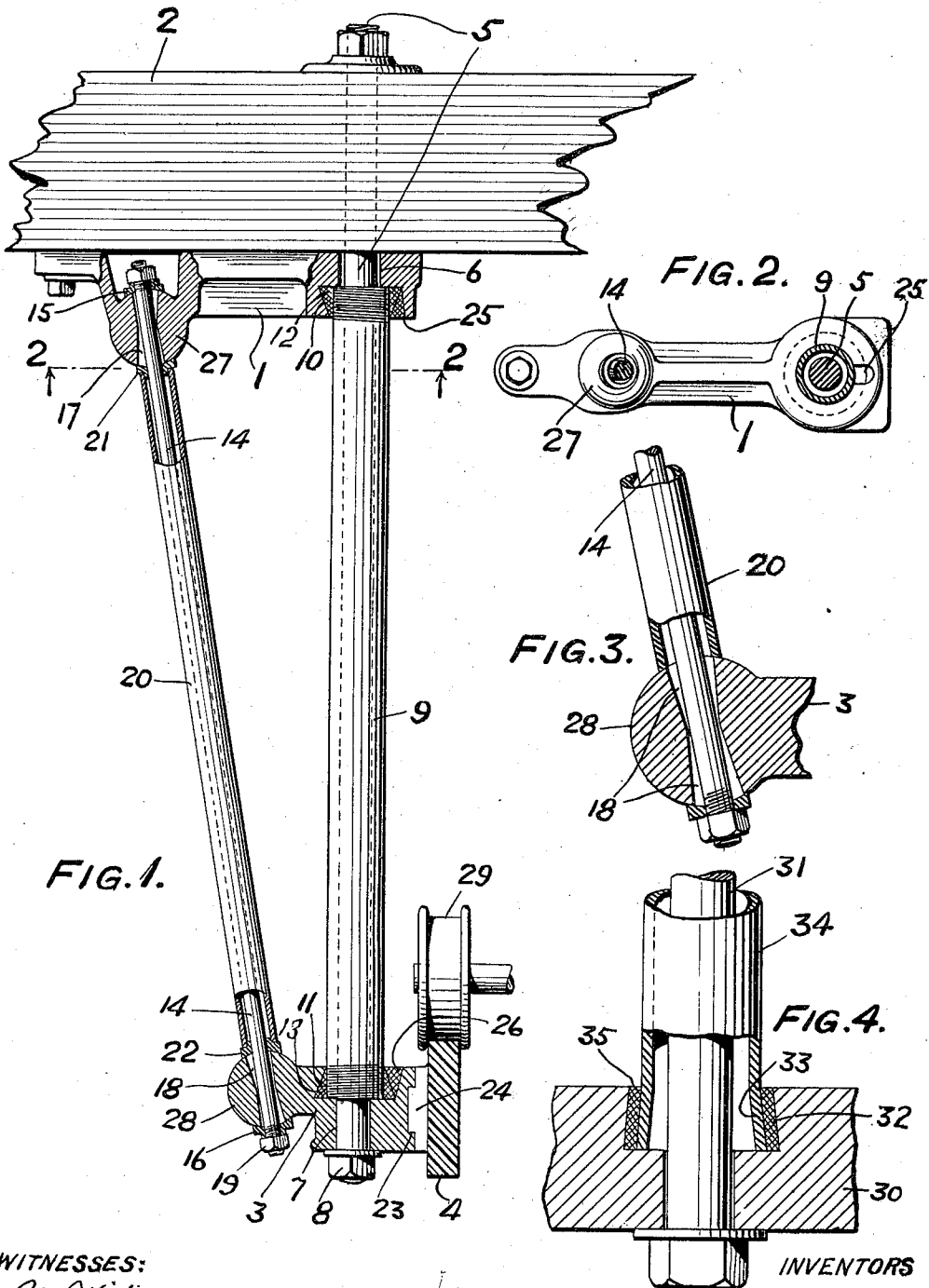


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TRACK SUSPENDER.

APPLICATION FILED NOV. 23, 1911.

1,018,931.

Patented Feb. 27, 1912.



WITNESSES:

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TRACK-SUSPENDER.

1,018,931.

Specification of Letters Patent.

Patented Feb. 27, 1912.

Application filed November 23, 1911. Serial No. 662,034.

To all whom it may concern:

Be it known that we, ROBERT F. SCOTT and ARTHUR M. HARRINGTON, citizens of the United States, residing in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Track-Suspenders, of which the following is a specification.

Our improvements relate to means for suspending tracks or ways for overhead cranes, traveling hoists, and, generally, carrying mechanisms movable on elevated rails.

The leading object of our invention is to provide simple and inexpensive suspending means readily assembled and dissociated which shall provide a firm support for a rail, preventing movement thereof and laterally disposed with relation thereto.

A further object is to provide special details of construction primarily adapted for use in providing track suspending means having the characteristics described but also adapted for use in other constructions.

The characteristic features of our improvements are fully disclosed in the following description and the accompanying drawings in illustration thereof.

In the drawings, Figure 1 is a part sectional elevation of mechanism embodying our improvements; Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is an enlarged sectional view of a detail of construction modifying that shown in Fig. 1 by the omission of a separable bearing member; and Fig. 4 is a sectional view of a modified form of detail used in connecting the vertical member of the hanger with a shoe.

The mechanism, as illustrated in the drawings, comprises the upper shoe 1 which is fixed to the beam 2, the lower shoe 3 which has the rail 4 fixed thereto, the vertical tie rod 5 which is supported by the beam 2 and passes through the apertures 6 and 7 in the respective shoes to support the shoe 3 by means of the nut or head 8, the tubular strut 9 which is sleeved on the rod 5 and has its reversely threaded ends held in the undercut sockets 10 and 11 of the respective shoes by the Babbitt metal fillets 12 and 13, the inclined tie rod 14 which is supported by the shoe 1 and passes through the bearings 15 and 16 and the apertures 17 and 18 in the respective shoes to support the shoe 3 by means

of the nut or head 19, and the tubular strut 20 which is sleeved on the tie rod 14 and has its opposite ends connected in bearing relation with the respective shoes by the separable bearing members 21 and 22.

The shoe 3 and the rail 4 are fixed together in firm relation by providing the former with the channel 23 and the latter with the rib 24 set in such channel. The sockets 10 and 11 are provided with the respective notches 25 and 26 through which the Babbitt or other metal forming the fillets can be poured. As such metal shrinks in cooling and may not fill the sockets, such fillets can be drawn into the desired tight engagement through the oppositely turned threads of the strut 9 in engagement therewith by turning such strut. The holes 17 and 18 respectively expand in the direction of the inclined tie rod 14 from the center of the bearing members 27 and 28 of the respective shoes, which bearing members have spherical surfaces for the engagement of the respective bearing members 15, 16, 21 and 22. These bearing members can thus be seated in different positions and the tie rod 14 set at various angles with respect to the vertical, permitting the use of rods of various lengths to support the rail at any desired elevation.

As the rail 4 which carries the wheel 29 is placed at the side of the shoe 3 and of the hanger in order to provide overhead clearance, the weight upon the rail, which is primarily carried by the tie rod 5, tends to move the shoe 3 laterally, which is prevented by the strut 20. The tendency to oscillation is prevented by the counter actions of the respective tension and compression members 5 and 9 and 14 and 20, and the necessary rigidity is effected by drawing up the tie rods or tension members into firm engagement with the struts or compression members.

The connection of the vertical strut with the shoes may be modified as illustrated in Fig. 4, where the shoe 30, having the strut 31 passing therethrough is provided with an undercut socket 32 which receives the expanded end 33 of a vertical hollow strut 34, a fillet 35 being formed in the socket around the strut end by pouring Babbitt metal into the annular space.

Having described our invention, we claim:
1. In mechanism of the character de-

scribed, a shoe having apertures extending therethrough, in combination with tie rods passing through said apertures, one of said apertures having oppositely expanding sections.

2. In mechanism of the character described, a shoe having apertures extending therethrough, in combination with angularly disposed tie rods passing through said apertures, one of said apertures having sections expanding outwardly in opposite directions whereby the angular position of the rod passing therethrough can be varied with relation to the other of said rods.

3. In mechanism of the character described, a shoe having angularly disposed apertures extending therethrough and a socket adjacent to one of said apertures, angularly disposed tie rods extending through said apertures, tubular struts sleeved on said rods, one of said struts being seated in said socket, and a fillet in said socket for engaging said tubular strut seated therein.

4. In mechanism of the character described, a shoe having an aperture extending therethrough and substantially spherical bearings adjacent to the ends of said aperture, said aperture having sections expanding outwardly in opposite directions, a tie rod extending through said aperture, a bearing member through which said tie rod acts upon said shoe, a strut sleeved on said tie rod, and a bearing member whereby said strut acts on said shoe.

5. In mechanism of the character described, a shoe having an aperture therethrough and an undercut socket surrounding said aperture, in combination with a rod extending through said aperture, a tube sleeved on said rod and seated in said socket,

and a fillet in said socket for engaging said tube.

6. In mechanism of the character described, a top shoe having apertures therein one of which is vertical and the other inclined thereto, a bottom shoe having apertures therein one of which is vertical and the other of which is inclined thereto, a vertical tie rod passing through said vertical apertures, an inclined tie rod passing through said inclined apertures, and tubular struts sleeved on said tie rods.

7. In mechanism of the character described, an upper shoe having an aperture therein and an undercut socket surrounding said aperture, a lower shoe having an aperture therein and an undercut socket surrounding said aperture, a tie rod extending through said apertures, a tubular strut having its respective ends provided with oppositely turned threads set in said sockets, said strut being sleeved on said rod, and fillets in said sockets engaged by the threaded ends of said strut.

8. In mechanism of the character described, a shoe having apertures extending therethrough, means comprising tension and compression members whereby said shoe is suspended and held against lateral movement, and a rail fixed to said shoe so that a vertical plane passing therethrough shall clear said members.

In witness whereof we have hereunto set our names this 21st day of November, 1911, in the presence of the subscribing witnesses.

ROBT. F. SCOTT.

ARTHUR M. HARRINGTON.

Witnesses:

JOS. G. DENNY, Jr.,

ROBT. R. KITCHEL.